ATTACHMENT A

TECHNICAL SPECIFICATION 4.8.1.1.2

DIESEL GENERATOR TESTING - SURVEILLANCE REQUIREMENTS

Present Condition of License

SURVEILLANCE REQUIREMENT 4.8.1.1.2.b specifies, in part, that at least once per 18 months, during shutdown, each diesel generator shall be demonstrated OPERABLE by:

7. Verifying that on a loss of the diesel generator (with offsite power not available and no Safety Injection Signal), the loads are shed from the emergency busses and that subsequent reloading of the diesel generator is in accordance with design requirements.

Proposed Condition of License

Delete SURVEILLANCE REQUIREMENT 4.8.1.1.2.b.7 in its entirety and renumber subsequent items (previous items 8 through 13 now become items 7 through 12).

Justification

The proposed change is in accordance with Generic Letter 83-30 and, therefore, is considered to involve no significant hazards considerations as defined in 10 CFR 50.92.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments, indicated power availability, and

b. Demonstrated OPERABLE at least once per 18 months during shutdown by:

1. Transferring 4 KV vital bus power supply from the normal circuit to the alternate circuit (manually and automatically) and to the delayed access circuit (manually), and

2. Verifying that on a Safety Injection test signal, without loss of offsite power, the preferred, immediate access offsite power source energizes the emergency busses with permanently connected loads and energizes the auto-connected emergency (accident) loads through sequencing timers.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

a. In accordance with the frequency specified in Table 4.8-1 on a STAGGERED TEST BASIS by:

1. Verifying the fuel level in the engine-mounted fuel tank.

2. Verifying the diesel starts from ambient condition and accelerates to at least 900 rpm in less than or equal to 10 seconds. The generator voltage and frequency shall be 4160 ± 420 volts and 60 ± 1.2 Hz within 13 seconds after the start signal. The diesel generator shall be started for this test by using one of the following signals with startup on each signal verified at least once per 92 days:

a) Manual.

b) Simulated loss of offsite power by itself (Startup bus under voltage).

c) A Safety Injection actuation test signal by itself.

3. Verifying the generator is synchronized, loaded to greater than or equal to 2484 kw in less than or equal to 60 seconds, and operates for greater than or equal to 60 minutes.

4. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.

5. Verifying the diesel engine protective relay trip cutout switch is returned to the cutout position following each diesel generator test.

SURVEILLANCE REQUIREMENTS (Continued)

b. At least once per 18 months, during shutdown, by:

1. Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service.

2. Verifying that the load sequence timers are OPERABLE with each load sequence timer within the limits specified in Table 4.8-2.

3. Verifying the generator capability to reject a load of greater than or equal to 508 kw while maintaining voltage at 4160 ± 420 volts and frequency at 60 ± 3 Hz.

4. Verifying the generator capability to reject a load of greater than or equal to 2484 kw without tripping. The generator voltage shall not exceed 4580 volts during and following the load rejection.

5. Simulating a loss of offsite power by itself, and:

   a) Verifying de-energization of the emergency busses and load shedding from the emergency busses.

   b) Verifying the diesel starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds, energizes the required auto-connected loads through sequencing timers and operates for greater than or equal to 5 minutes while its generator is loaded with the permanent and auto-connected loads. After energization of these loads, the steady state voltage and frequency of the emergency buses shall be maintained at 4160 ± 420 volts and 60 ± 1.2 Hz during this test.

6. Verifying that on a Safety Injection test signal without loss of offsite power, the diesel generator starts on the auto-start signal and operates on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be 4160 ± 420 volts and 60 ± 1.2 Hz within 13 seconds after the auto-start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.

~~7. Verifying that on a loss of the diesel generator (with offsite power not available and no Safety Injection signal), the loads are shed from the emergency busses and that subsequent reloading of the diesel generator is in accordance with design requirements.~~

SURVEILLANCE REQUIREMENTS (Continued)

7. ~~8.~~ Simulating a loss of offsite power in conjunction with a Safety Injection test signal, and

a) Verifying de-energization of the emergency busses and load shedding from the emergency busses.

b) Verifying the diesel starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds, energizes the auto-connected emergency (accident) loads through sequencing timers and operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization of these loads, the steady state voltage and frequency of the emergency buses shall be maintained at 4160 ± 420 volts and 60 ± 1.2 Hz during this test.

c) Verifying that all automatic diesel generator trips, except engine overspeed, low lube oil pressure and generator differential, are bypassed when the diesel engine trip cutout switch is in the cutout position and the diesel is aligned for automatic operation.

8. ~~9.~~ Verifying the diesel generator operates for at least 24 hours. During the first 2 hours of this test, the diesel generator shall be loaded to greater than or equal to 2750 kw and during the remaining 22 hours of this test, the diesel generator shall be loaded to greater than or equal to 2484 kw. The generator voltage and frequency shall be 4160 ± 420 volts and 60 ± 1.2 Hz within 13 seconds after the start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test. Within 5 minutes after completing this 24 hour test, perform Specification 4.8.1.1.2.b.5.b).*

9. ~~10.~~ Verifying that the auto-connected loads to each diesel generator do not exceed the maximum rating of 2750 kw.

10. ~~11.~~ Verifying the diesel generator's capability to:

a) Synchronize its isolated bus with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,

b) Transfer its loads to the offsite power source, and

c) Be restored to its standby status.

*The requirement to verify the 10-second startup and loading of the diesel generator may be waived for the first inspection interval.

SURVEILLANCE REQUIREMENTS (Continued)

11. ~~12.~~ Verifying that with the diesel generator operating in a test mode, connected to its bus, a simulated safety injection signal opens the auxiliary transformer breaker and automatically sequences the emergency loads onto the diesel generator.

12. ~~13.~~ Verifying that the Shutdown Relay lockout feature prevents diesel generator starting only when required:

a) Generator differential current-high.
b) Engine lube oil pressure-low.
c) Emergency stop button actuated.
d) Overspeed trip actuated.

c. At least once per 10 years or after any modifications which could affect diesel generator interdependence by starting all diesel generators simultaneously, during shutdown, and verifying that all diesel generators accelerate to at least 900 rpm in less than or equal to 10 seconds.